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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,811	11/14/2003	Carolyn L. Sheldon	COS-819 (APIP-1151US)	2575

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FINA TECHNOLOGY INC
PO BOX 674412
HOUSTON, TX 77267-4412

EXAMINER

ZACHARIA, RAMSEY E

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/713,811	Applicant(s) SHELDON ET AL.	
	Examiner Ramsey Zacharia	Art Unit 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5,9-20,26 and 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,9-20,26 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

2. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 16 recites the limitation "the co-catalyst" in line 1. There is insufficient antecedent basis for this limitation in the claim. Note that claim 16 depends from claim 13, while the co-catalyst is first introduced in claim 15.

Claim Rejections - 35 USC § 102

4. Claims 1, 2, 4, 5, 6-14, 17-20, 26 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Sheldon et al. (US 2004/0013870 A1)

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Sheldon et al. teach a polypropylene slit film tape that may be used in woven materials or fabrics (paragraph 0002). The tape has a draw ratio of about 3:1 to 10:1 and a tenacity of at least 5 g/den (paragraph 0007). The polypropylene is an isotactic polypropylene that may be prepared using a metallocene catalysts (paragraph 0028). Additives may be incorporated into the tape (paragraph 0030).

Regarding claims 10, 11 and 27, the polypropylene of Gownder et al. should inherently comprise an isotacticity of less than about 99.0% and an insertion error of more than about 2.0% because Gownder et al. uses a metallocene catalyst to form the isotactic polypropylene. According to the instant specification, the use of a metallocene catalyst (as opposed to a Ziegler-Natta catalyst) inherently results in a polypropylene that comprise an isotacticity of less than about 99.0% and an insertion error of more than about 2.0% (see Example 1, paragraph 0034 on pages 15-16).

Moreover, it appears from the instant specification that woven products of a tape comprising isotactic polypropylene having a tenacity of at least about 2.5 g/den typically exhibit a tenacity of within about 10.0% of the tenacity of the film product (see paragraph 0014 on page 5). Thus, because Sheldon et al. teach a woven product formed from a slit film tape comprising isotactic polypropylene having a tenacity of at least about 2.5 g/den, one skilled in the art would expect the tenacity of their woven product to inherently be within about 10.0% of the tenacity of the film product.

Claim Rejections - 35 USC § 103

5. Claims 1, 2, 4, 5, 9-20, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schlecker (U.S. Patent 5,393,598) in view of Gownder et al. (US 2003/0183975 A1).

Schlecker teaches a fabric comprising a layer of woven from flattened tapes of polypropylene (column 3, lines 15-22).

Schlecker is silent as to the physical properties of the polypropylene flattened tapes.

Gownder et al. teach a polymer slit film comprising an isotactic polypropylene prepared in the presence of a metallocene catalyst (paragraph 0012). The film has a draw range between about 4.5:1 to 12:1 (paragraph 0033). The catalyst may be a mixture of catalysts including organoaluminum compounds (paragraph 0028). The film may have a tenacity of at least 5 g/den (Figure 3). Additives may be included in the polymer (paragraph 0023). The slit tape of Gownder et al. exhibits greater percentage elongation at break and a higher tenacity than conventional polypropylene tapes (paragraph 0013).

Regarding claims 10, 11 and 27, the polypropylene of Gownder et al. should inherently comprise an isotacticity of less than about 99.0% and an insertion error of more than about 2.0% because Gownder et al. uses a metallocene catalyst to form the isotactic polypropylene. According to the instant specification, the use of a metallocene catalyst (as opposed to a Ziegler-Natta catalyst) inherently results in a polypropylene that comprise an isotacticity of less than about 99.0% and an insertion error of more than about 2.0% (see Example 1, paragraph 0034 on pages 15-16).

Art Unit: 1773

Moreover, it appears from the instant specification that woven products of a tape comprising isotactic polypropylene having a tenacity of at least about 2.5 g/den typically exhibit a tenacity of within about 10.0% of the tenacity of the film product (see paragraph 0014 on page 5). Thus, because Gownder et al. teach a slit film tape comprising isotactic polypropylene having a tenacity of at least about 2.5 g/den, one skilled in the art would expect the tenacity of a woven product produced from such a slit film tape to inherently be within about 10.0% of the tenacity of the film product.

One skilled in the art would be motivated to use the tape of Gownder et al. as the flattened polypropylene tapes of Schlecker because it exhibits greater percentage elongation at break and a higher tenacity than conventional polypropylene tapes.

6. Claims 1, 2, 4, 5, 9-20, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schlecker (U.S. Patent 5,393,598) in view of Saito et al. (U.S. Patent 6,096,843).

Schlecker teaches a fabric comprising a layer of woven from flattened tapes of polypropylene (column 3, lines 15-22).

Schlecker is silent as to the physical properties of the polypropylene flattened tapes.

Saito et al. teach an isotactic polypropylene formed from propylene polymerized in the presence of a metallocene catalyst in combination with an organoaluminum compound (column 2, lines 11-54). The polypropylene is designed to exhibit a high tenacity (column 1, lines 10-18). The polypropylene may be formed into a film or fiber (column 8, lines 25-31). In the embodiment of Example 3, the polypropylene is formed into a film and drawn at ratios of 4.2:1

Art Unit: 1773

and 8.2:1 (column 11, line 55-column 12, line 4). The polypropylene of Saito et al. exhibits high tenacity, heat resistance, and high-temperature rigidity (column 1, lines 10-17).

Saito et al. do not report the tenacity of their polymer in g/den. However, the polymer is designed to have a high tenacity, is formed using the same polymerization system as the instant invention (i.e. a metallocene catalyst in conjunction with an oragnoaluminum compound), and is drawn at the same ratio as the instant invention (i.e. about 5.0:1 to about 10.0:1). Therefore, the tenacity of the resulting material should inherently be the same as that of the instant invention. Moreover, in the event that the tenacity of the film of Saito et al. is not inherently the same as that of the instant invention, it would be obvious to one skilled in the art to optimize the reaction and processing conditions to obtain a given tenacity since Saito et al. is directed towards producing a polypropylene having a high tenacity.

Moreover, it appears from the instant specification that woven products of a tape comprising isotactic polypropylene having a tenacity of at least about 2.5 g/den typically exhibit a tenacity of within about 10.0% of the tenacity of the film product (see paragraph 0014 on page 5). Thus, because Saito et al. teach a slit film tape comprising isotactic polypropylene that should have a tenacity of at least about 2.5 g/den, one skilled in the art would expect the tenacity of a woven product produced from such a slit film tape to inherently be within about 10.0% of the tenacity of the film product.

One skilled in the art would be motivated to form the flattened tapes of Schlecker with the polypropylene of Saito et al. to yield a woven fabric having high tenacity, heat resistance, and high-temperature rigidity.

Response to Arguments

7. Applicant's arguments filed 16 February 2006 have been fully considered but they are not persuasive.

Regarding the rejections over Sheldon et al. and Saito et al., the applicants argue that the references do not teach or suggest that their woven product exhibits a tenacity of within about 10.0% of the tenacity of the film product.

This is not persuasive because it appears from the instant specification that woven products of a tape comprising isotactic polypropylene having a tenacity of at least about 2.5 g/den typically exhibit a tenacity of within about 10.0% of the tenacity of the film product (see paragraph 0014 on page 5). Thus, because Sheldon et al. and Saito et al. each teach a slit film tape comprising isotactic polypropylene that has a tenacity of at least about 2.5 g/den, one skilled in the art would expect the tenacity of a woven product produced from such a slit film tape to inherently be within about 10.0% of the tenacity of the film product.

Regarding the rejection over Schlecker in view of Gownder, the applicants contend that Gownder is precluded as prior art by 35 U.S.C 103(c).

This is not persuasive for the following reasons. First, as Gownder also constitutes prior art under 35 U.S.C. 102(a), it is not subject to 35 U.S.C. 103(c). Second, the requirements of 35 U.S.C. 103(c) require that the prior art and invention be commonly owned at the time of invention. The fact that the reference and the application have the same assignee is not, by itself, sufficient evidence to disqualify the prior art under 35 U.S.C. 103(c). There must be a statement that the common ownership was "at the time the invention was made." See MPEP 706.02(I).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Zacharia whose telephone number is (571) 272-1518. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney, can be reached at (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

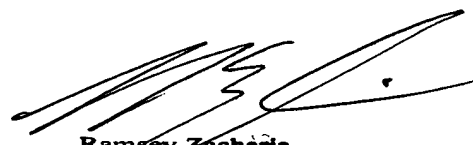
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Application/Control Number: 10/713,811

Page 9

Art Unit: 1773

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'R. Zacharia', is written over the printed name.

Ramsey Zacharia
Primary Examiner
Tech Center 1700